

REMARKS

Claims 1, 3, 4, 16 and 18 have been amended. Claims 1-16 and 18 remain pending in the application. Reexamination and reconsideration of the claims, in view of the discussion below, are respectfully requested.

The examiner has rejected claim 1 under 35 U.S.C. 101 as having no tangible results. Claim 1 is amended herein to include the feature that determining whether the measured power factor is less than the determined power factor thereby results in determining "the pressure of the gas relative to a pre-defined pressure." It is submitted that the claim now clearly states a tangible result.

The examiner has rejected claims 16 and 18 under 35 U.S.C. 101 as directed to non-statutory subject matter. Applicants have amended the form of claims 16 and 18 so they are clearly independent claims. It is believed they now overcome this rejection.

Claims 3 and 4 were objected to under 37 C.F.R. 1.75(c) as being of improper dependent form. These claims have been amended as suggested by the Examiner.

Claims 14-16 and 18 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Since the amendments to claims 16 and 18 remove the reference back to claims 14 and 15, it is submitted that this basis of rejection is overcome.

The examiner has rejected claim 1 under 35 U.S.C. 102(b) as anticipated by the Sanada Japanese reference (JP-11949000). This reference describes two electrical generators directly connected to diesel engines. The power factor of each electrical output is measured and this is used to adjust the load conditions, such that the critical frequency is separated from the characteristic frequency of the engine to suppress torsion-causing vibration.

Claim 1 is therefore novel over Sanada because this reference lacks at least the steps of: comparing the measured power factor with a power factor determined to correspond to the power factor of electricity generated by the engine when operating at the pre-defined pressure; and determining whether the measured power factor is less than the determined power factor, to

thereby determine the pressure of the gas relative to a pre-defined pressure. Sanada does not disclose any means for determining whether the pressure of working gas in the engine falls outside a pre-defined range. In fact, this document does not mention an engine working gas pressure at all.

The examiner rejected claims 2-16 and 18 under 35 U.S.C. 103(a) as being unpatentable over Sanada in view of Takanasi et al. (U.S. Patent No. 3,660,583) and Light (U.S. Patent No. 4,891,569). None of the documents cited by the Examiner teach a relationship between the power factor and working gas pressure. Indeed, Sanada does not mention gas pressure in an engine at all. Without this knowledge, a person of ordinary skill in the art would lack any motivation to analyze the power factor in order to determine the engine gas pressure. Thus, the person of ordinary skill in the art would certainly not be motivated to compare the measured power factor (or power factors) with a pre-defined power factor corresponding with that generated by the engine when operating at the pre-defined pressure, as required in claims 1, 2, 12, 14 and 16. Similarly, the person of ordinary skill in the art would certainly not be motivated to analyze at least some of the power factors to identify variations, as required by claims 9, 13, 15 and 18.

In contrast, the present invention is able to determine whether the pressure of the gas in the engine is acceptable using the power factor of generated electricity. This is highly advantageous, as it avoids the needs for intrusive, complex and costly hardware to measure gas pressure. Consequently, the present invention would not be obvious to the person of ordinary skill in the art.

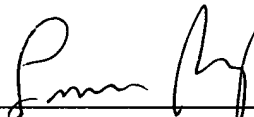
Consequently, claims 1-16 and 18 are allowable, and Applicants respectfully request that the examiner pass these claims to allowance.

A Credit Card Payment Form PTO-2038 in the amount of \$460.00 representing a Two-Month Request for Extension of Time under 37 C.F.R. § 1.17(a)(2) large entity is also enclosed.

ATTORNEY DOCKET NO. 02157.0028U1
APPLICATION NO. 10/575,693

This amount is believed to be correct, however, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,

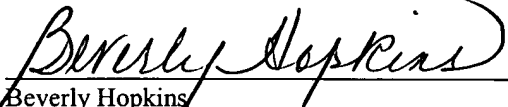


Sumner C. Rosenberg
Registration No. 28,753


Ballard Spahr Andrews & Ingersoll, LLP
Customer Number 23859
(678) 420-9300
(678) 420-9301 (fax)

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence, including any items indicated as attached or included, is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.



Beverly Hopkins



Date